WHAT IS CLAIMED IS:

1. A method of designing a semiconductor circuit device, comprising the steps of:

generating first circuit data comprising information on a first circuit driven by a voltage from a first power system;

generating second circuit data comprising information on a second circuit driven by a voltage from a second power system different from the first power system;

obtaining cell data prestored in a storage medium and comprising information on a boundary circuit; and

generating boundary circuit connection information indicating that the boundary circuit is connected on a transmission path between the first circuit and the second circuit.

2. A method of designing a semiconductor circuit device according to Claim 1, wherein the boundary circuit comprises a circuit for suppressing short-through current between the first circuit and the second circuit when one of the first circuit and the second circuit is off and another one of the first circuit and the second circuit is on.

3. A method of designing a semiconductor circuit

device according to Claim 1, wherein the boundary circuit comprises a circuit for preventing circuit malfunction due to indeterminate current between the first circuit and the second circuit when one of the first circuit and the second circuit is off and another one of the first circuit and the second circuit is on.

4. A method of designing a semiconductor circuit device according to Claim 1, wherein the boundary circuit comprises a circuit for suppressing leakage current between the first circuit and the second circuit when one of the first circuit and the second circuit is off, and another one of the first circuit and the second circuit is on.

5. A method of designing a semiconductor circuit device according to Claim 1, wherein the boundary circuit comprises a circuit for level conversion between the first circuit and the second circuit.

6. A method of designing a semiconductor circuit device according to Claim 1, wherein the boundary circuit comprises a protection circuit for protecting a transistor in the first circuit and/or the second circuit from electrostatic discharge.

7. A method of designing a semiconductor circuit device according to Claim 1, wherein the first circuit data, the second circuit data, and the cell data are data for logic circuit design.

8. A method of designing a semiconductor circuit device according to Claim 1, wherein the first circuit data, the second circuit data, and the cell data are data for layout design.

9. A semiconductor circuit device designed by a method of designing a semiconductor circuit device according to Claim 1.

10. A method of designing a semiconductor circuit device, comprising the steps of:

designing a first circuit driven by a voltage from a first power system;

designing a second circuit driven by a voltage from a second power system different from the first power system; and

connecting a prepared cell on a line for transmitting signals between the first circuit and the second circuit.

11. A semiconductor circuit device designed by a

method of designing a semiconductor circuit device according to Claim 10.

12. A computer-readable storage medium for storing a cell library used for semiconductor design, comprising:

a boundary cell comprising information on a boundary circuit connected on a signal transmission path between a first circuit driven by a voltage from a first power system and a second circuit driven by a voltage from a second power system different from the first power system.

13. A design system for a semiconductor circuit device, comprising:

a unit of generating first circuit data comprising information on a first circuit driven by a voltage from a first power system;

a unit of generating second circuit data comprising information on a second circuit driven by a voltage from a second power system different from the first power system;

a unit of obtaining cell data comprising information on a boundary circuit from the storage medium; and

a unit of generating boundary circuit connection information indicating that the boundary circuit is connected on a transmission path between the first circuit and the second circuit.